

REMARKS

I. Interview and Office Action Summary

In a telephone interview on February 2, 2000, the undersigned spoke with Examiner Nguyen regarding this application. The undersigned wishes to thank the Examiner for the courtesy extended during that interview. In the interview, the independent claims were discussed and the §112 issues addressed. In the interview, the Examiner tentatively agreed that language further defining the chemical mechanical planarization polishing pad as being a non-fixed abrasive pad that is designed to work with a polishing slurry would better define the element of a chemical mechanical planarization polishing pad. The Examiner also tentatively agreed that a non-fixed abrasive chemical mechanical planarization polishing pad designed to receive a polishing slurry was not shown by the cited sanding devices.

Claims 32, 34, and 36-43 are presently pending. Claims 32, 34, 36-38, and 40 are the independent claims.

In the Office Action, the Examiner rejected claims 32, 34, 36-43 as indefinite for reciting the phrase “adapted to receive a polishing slurry”. Claims 32, 34, and 36-43 were also rejected as obvious over the combination of the Hibbard, McGarvey, and Kirchner references.

II. Rejection of Claims 32, 34, 36-43 Under 35 U.S.C. §112, Second Paragraph

Applicants have amended claims 32, 34, 36-40 to clarify that the chemical mechanical planarization (CMP) polishing pad is a non-fixed abrasive pad configured for use with a polishing slurry. With this amendment, Applicants submit that it is clear that the presently claimed polishing pad does not possess a fixed abrasive and polishes the semiconductor wafer with the polishing slurry. Accordingly, Applicants submit that the §112 rejection has been traversed.

III. Claim Rejections Under 35 USC §103(a)

The Examiner rejected claims 32, 34, and 36-43 as obvious over Hibbard (U.S. Patent No. 5,454,844) in view of McGarvey (U.S. Patent No. 3,427,765) and Kirchner (U.S. Patent No. 2,187,743). These references refer to generic sanding devices and fail to disclose a polishing pad assembly either utilizing a polishing slurry or having at least one non-fixed abrasive CMP polishing pad configured to polish semiconductor wafers with a polishing slurry as claimed in amended claims 32, 36-38 and 40.

Chemical mechanical planarization is a specific process that imposes extreme demands of accuracy and is used in semiconductor processing to planarize semiconductor wafers to within tolerances measured in angstroms (10^{-10} meters). As described in the specification on, for example, page 4, line 22 to page 5, line 5, the chemical mechanical planarization process used to planarize semiconductor wafers requires use of a polishing pad suitable for use with a polishing slurry or agent. There is no teaching or suggestion in the cited references of this feature and one of ordinary skill in the art would not look to these references to address CMP issues.

Furthermore, there is no teaching of a non-fixed abrasive pad that uses polishing slurry in the cited references. Accordingly, Applicants respectfully submit that amended claims 32, 34, 36-43 and distinguish over the cited references. Claims 39 and 41-43 are dependent claims, therefore their allowability directly follows from allowability of independent claims 32, 34, 38, and 40.

Applicants submit that all of the claims are now in condition for allowance.

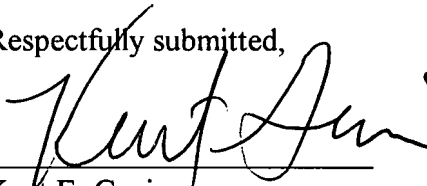
IV. Conclusion

Applicants have amended claims 32, 34, 36-38, and 40 to more clearly define the claimed

invention. Applicants submit that the above amendments are fully supported by the specification as filed. Applicants respectfully disagree with the Examiner's prior art rejections, however Applicants have amended the claims to expedite allowance. Applicants expressly reserve the right to file a continuation application to pursue the unamended claims and claims directed to a fixed abrasive version of the invention as is disclosed, for example, on page 4, lines 28-29, of the specification as filed. In light of the above amendments and remarks, Applicants submit that the pending claims are in condition for allowance.

If any questions arise or issues remain, the Examiner is invited to contact the undersigned at the number listed below in order to expedite disposition of this application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kent E. Genin", written over a horizontal line.

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